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ALASKA ECONOMIC TRENDS

May
1988

Alaska's Transportation Industry

Alaska's Air Transportation Industry

Rail Transportation in Alaska

Truck and Water Transportation in Alaska

Alaska's Employment Scene

Alaska Economic Trends

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The following notes pertain to Nonagricultural Wage and Salary Employment Tables:

Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark date March 1987.

P/ Denotes preliminary estimates.
R/ Denotes revised estimates.

Alaska Economic Trends is a monthly publication dealing with economic information analysis and issues of Alaska. Opinions expressed by guest authors may not be consistent with those of the Alaska Department of Labor.

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Alaska's Air Transportation Industry

By Neal Fried

Barnstorming pilots were the pioneers of Alaska's aviation industry. When James Martin shipped a biplane to Fairbanks in 1913 for the Fourth of July exhibitions, the foundation for Alaska's air transportation industry was placed. Others joined in the fray, traveling the state, setting new records or performing daring flying feats. Then Roy Jones arrived in Ketchikan in 1922 to establish the first commercial airline with his Curtis MF "Flying Boat." Two years later Ben Eielson, Alaska's most famous flyer, convinced the U.S. Post Office to deliver the first air mail. The industry was well on its way.

In 1924 Noel Wien came to Fairbanks to fly his plane commercially. This marked the beginning of Wien Airlines, Alaska's dominant air carrier for many years. Bob Reeve, who started out flying miners onto inaccessible glaciers near Valdez, extended commercial aviation to the Aleutian Islands. His operation developed into Reeve Aleutian Airways. Linous "Mac" McGee founded McGee Airways in 1932 which became Alaska Airlines after many mergers and acquisitions.

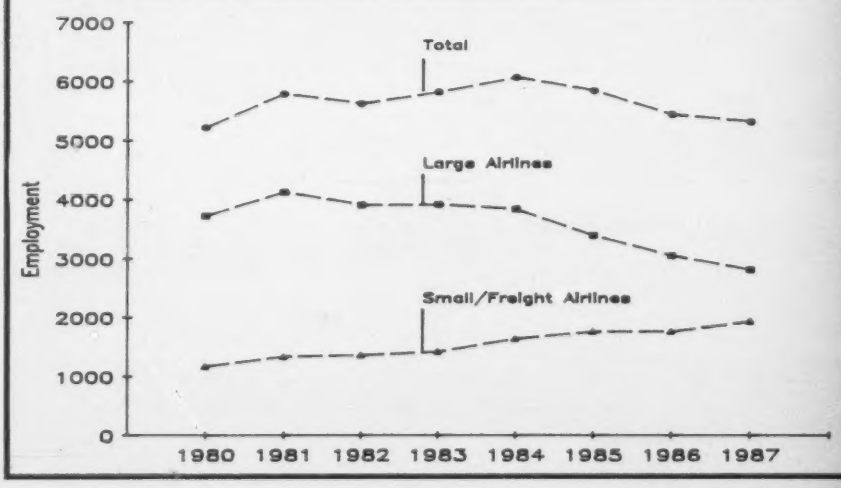
Alaska's aviation industry is the state's largest transportation sector.

Alaska was natural territory for the plane. Quickly it became hard to think of a time when the plane was not a "native species" to the state. There were virtually no road systems. The only other means of travel was by rail, dog sled, or water, most of which were useless during part of the year.

Many understood the plane's potential, and an industry quickly developed. Small airports and airstrips were established in many communities. When World War II got underway, Alaska's first big airfields were built for the defense of the territory and to ferry warplanes to the Soviet Union. After the war, larger civilian airports were built and the industry blossomed. Recently the Alaska Department of Transportation and Public Facilities (DOTPF) inventoried the state for airports and airstrips. They counted 988 of them—from its three international airports in Anchorage, Fairbanks and Juneau, to small emergency and recreational airstrips. There are so many airfields that the ownership of 149 of them is unknown.

Today Alaska's aviation industry is the state's largest transportation sector. Only the commercial side of this industry is addressed in this article, though the recreation side is an important component. The large military aviation sector is not addressed in this article either. The discussion will begin in 1980 because deregulation, though enacted in 1978, was not felt in Alaska until the early 1980s. Nineteen eighty also marked the end of the post-pipeline construction slump and the beginning of the oil revenue boom.

Figure 1
Alaska Air Transportation Employment 1980-1987



Aviation—A Large Employer

Presently 5,300 people are employed in the air transportation industry. This number includes; private sector airport services, scheduled and nonscheduled passenger and cargo carriers, charters and flightseeing services. Possibly an equal number work in direct support of these oper-

ations. For example, 1,366 people work for the Federal Aviation Administration. Other indirect air transportation employment includes; repair facilities, aviation suppliers, airport personnel, state and municipal employees supporting and operating the airports, caterers, flight training schools, customs and others. Air transportation's percentage of total employment is five times higher in Alaska than in the rest of the nation. The industry transports 3.9 times the state's population each year. This compares to the entire U.S. passenger traffic, which equals 1.3 times the nation's population.

As economic activity began to pick up in 1980, air transportation employment began to grow (Figure 1). There is an irrefutable link between economic activity and the volume of business this industry enjoys, but not all of this growth resulted from increased economic activity. Deregulation played an equally important role.

Deregulation of Alaska's Airline Industry

Before deregulation there were only five certified air carriers in Alaska. In other words, the Civil Aeronautics Board had only given permission to five carriers to provide scheduled air service to the entire state. The carriers were Alaska Airlines, Kodiak Western, Wien Airlines, Munz Airlines, and Reeve Aleutian. These major air carriers subcontracted with smaller noncertified airlines for some routes. The subcontracted routes provided the only means for noncertified carriers to grow, which put them at the mercy of the certified carriers.

The effects of deregulation on services and costs of air travel vary. Deregulation has meant most Alaskan communities are now being serviced more frequently and by more carriers. For example, before deregulation the village of Alakanuk received scheduled service from one airline 9-12 times per week. Today three airlines provide scheduled services 50 times per week. A study by the State's House Legislative Research Agency corroborates this trend. That agency found that between 1978-1984 there was an increase in departures in 127 communities, a decrease in 24 and no change in 28.

Deregulation meant many routes became self-supporting. Today only 52 communities are receiving subsidies from the U.S. Department of Transportation to provide essential air service. The cost of this subsidy was reduced to $4 million dollars. If adjusted to 1981 dollars, this amounts to about a third of what the subsidy was prior to deregulation.

Deregulation's impact on the cost of travel is less clear, though some general conclusions can be made. An informal study prepared by the Civil Aeronautics Board (CAB) comparing pre-deregulation air fares (1982) with early deregulation fares (1983), concluded fares increased moderately. The author surveyed the present cost of air fares (all intrastate) with pre-deregulation in 61 communities. In 67% of the cases air fares increased (after adjusting for inflation), they fell in 23% of the cases and remained relatively unchanged in the rest. In most cases the changes in fares were small.

In a different vein, a House Research report came to a surprising conclusion about Alaska's passenger air fare costs, stating that "on a cost-per-mile basis, air fares in Alaska are not substantially higher than those in the rest of the country, and are in fact less expensive in some cases." On the cargo side, prices appear to have stayed relatively level. However, for the carriers it has become a much more competitive business because of all of the new entries.

A certification process existed, but it took two to seven years, was quite costly and it was rarely successful. During the last 27 years of regulation only one new applicant was successful in obtaining certification. Even some large carriers such as Wien Airlines were frustrated when they wanted to expand their services to the lower 48 markets. Before deregulation, Wien tried unsuccessfully to enter the Seattle market on three separate occasions but failed each time.

Before 1982 the federal government subsidized the airline industry to the tune of $10 million a year in Alaska. The subsidy assured that the air carriers could provide service to all of their certificated points. In 1981, 187 out 220 communities receiving scheduled service were on subsidized routes.

Deregulation Delivers Rapid Change

With deregulation, any airline business that could prove financial and managerial competence obtained certification. The process required six to ten months, and the results of easier certification were immediate.

Approximately 24 subcontractors were certified immediately and presently more than 40 certified airlines are flying scheduled routes in Alaska. During this same period, more than 24 air carriers have gone bankrupt or have been absorbed by others. Only two of the original five certified airlines still exist today—Alaska Airlines and Reeve.

Though many of the new airlines entered the field at the expense of the larger carriers, total employment grew. Employment for the large carriers peaked in 1981, but employment for the smaller carriers grew uninterrupted through 1987 (Figure 1). The recessionary economy was partially responsible for the losses sustained in 1986 and 1987 by the large carriers. However, deregulation was also responsible for much of this shift in employment.

Mail—A Most Important Ingredient

The U.S. Postal Service is the bread and butter of Alaska's air transportation industry. For federal fiscal year 1987, $61.8 million was paid to Alaska's certified air mail carriers. According to the Postal Service and some industry officials these revenues represent about 50-60% of the air transportation revenues earned on routes in the state. This compares with 5% nationwide.

The "bush airlines" are more dependent on mail as a source of revenue, though it is important to nearly all carriers as a stable source of revenue. The U.S. mail must be carried by certified carriers. To qualify for this lucrative business many smaller airlines applied for certification. Sending freight via mail to Alaska's smaller communities often proves to be the most economical way for the sender and receiver, because of the heavy subsidies the Postal Service pays. For example, a 20 pound package sent

priority mail from Anchorage to Ambler via Kotzebue costs the sender $10.09. The air transportation cost to the Postal Service is $22.01, not including the Postal Service's handling costs. For nonpriority mail, the subsidy is larger.

For communities not served by certified air carriers, the Postal Service runs a dozen air taxis on contract to provide mail service. Some of these communities include Red Mountain, Alexander Creek, and English Bay. Gold Creek was formerly served by the Alaska Railroad, but it became cheaper to send mail via airplane when the railroad ownership changed hands.

Geographic Detail

Air transportation is important to all regions of the state. Proportionately, the Gulf Coast region has the smallest air transportation industry (Table 1). The industry supplies 1% of the region's wage and salary employment. Much of the Gulf Coast is accessible by road and water on a year-round basis. In Southeast Alaska the need for air transportation is greater because of the lack of road access, though excellent water access exists. For the Northern and Southwestern parts of the state, which often lack water or road access, more than 3% of their employment is in this industry. Anchorage has road and water access, but it has nearly the same share of total employment as most rural areas of the state. This is because Anchorage is both the state's air transportation hub and an international crossroads.

Though 43% of the state's population resides in Anchorage, 60% of the air industry's employment is in Anchorage. No other airport in the state experiences 20% of the passenger or cargo traffic that moves through the Anchorage International Airport. More than 40 scheduled and nonscheduled airlines operate out of the airport. In 1987 more than 2.7 million passengers boarded or deplaned and another 1.7 million were in transit.

60% of the air industry's employment is in Anchorage.

Alaska's International Air Connection

Of those passengers in transit, 1.6 million were internationally bound. Cargo-wise, Anchorage International tops the nation for international transit cargo, beating out New York or Dallas. Alaska benefits from this activity because its location is almost equidistant between Europe and Asia (Figure 2). This makes Anchorage a convenient place for an international air pit stop. Almost 95% of all Asia-Europe bound air cargo traffic comes through Anchorage and 70% of Asia to the "Lower 48." According to Anthony Sampson's book *Empires of the Sky*, "Anchorage owes its prosperity to oil but even more to the planes

Table 1
Alaska's Air Transportation Industry
Employment By Area[1]
1987

	Air Transportation Employment	Distribution By Area	Total Employment	Air Transportation as Percent of Total Employment
Alaska Statewide	5.288	100.0%	210.252	2.5
Anchorage-MatSu Region	3.207	60.6	107.523	3.0
Anchorage Borough	3.155	59.7	101.046	3.1
Gulf Coast Region	173	3.3	19.687	0.9
Interior Region	488	9.2	29.368	1.7
Fairbanks North Star Borough	321	6.1	25.456	1.3
Northern Region*	408	7.7	12.835	3.2
Southeast Region	569	10.8	28.598	2.0
Southwest Region*	396	7.5	12.348	3.2

[1] Totals will not add due to inclusion of 9 month averages.

* Represents a 9 month average.

Figure 2
Alaska's Strategic Location for International Air Trade

which have connected it both to the world and to the rest of Alaska." This statement sheds some light on Anchorage's strategic location in international aviation.

The future of Alaska's international air business is clouded by improved technology and changing diplomatic relations.

The economic effects of the international side of the airport vary. At present very few international bound passengers ever leave the international terminal and visit the city of Anchorage. In 1987, of the more than 1 million Japanese who landed at the airport, only 7,000 of them spent any time outside of the airport. This is not to say they have no impact on the local economy, because in 1987 these passengers spent $81.6 million in the airport's duty free shops. In addition to the revenues, the concessionaire, Duty Free Shoppers, employs 260 people.

Additionally, most of the international passenger and cargo airlines have staffs residing in Anchorage. More than 250 people are employed by these airlines. Many of the flight crews shift in Anchorage, which generates a need for lodging. All of them purchase fuel and perform maintenance here. According to the MAPCO, Tesoro, and Chevron refineries, jet fuel is one of the single largest products they produce and market. Jet fuel is a premium fuel to the refineries, because all of their product can be sold relatively easily in Alaska.

The other international airports in the state are in Fairbanks and Juneau. During the past three years Fairbanks International experienced setbacks on the international side. In 1984 the last major international carrier, Japan Airlines, pulled its permanent presence out and consolidated its operations in Anchorage. On a more positive note, Emery Worldwide began to make weekly stops in Fairbanks in January 1988 and Cargo Lux, based out of Luxembourg, makes occasional stops. Air North, a Canadian carrier, makes scheduled flights between Fairbanks, Dawson and Whitehorse. It is this airline which gives Juneau an international status, flying scheduled flights between Juneau and Whitehorse.

The future of Alaska's international air business is clouded by improved technology and changing diplomatic relations. Many airlines are purchasing Boeing's new 747-400 series for their passenger traffic. This plane has the capability of flying from Europe to Asia nonstop. "Glasnost" may eventually be good for Alaska-Soviet trade, but more immediately it could mean more Europe-Asia bound airlines will fly over the Soviet Union instead of the Polar Route. Japan Airlines, British Airways and others have already diverted some of their flights. Concern over these developments spurred the state into establishing an aggressive airport marketing effort last year.

Not all of the news on the international front is bad. It may be inevitable that Anchorage will lose more passenger flights as the airlines acquire new jets. Nevertheless, many of the old passenger jets will be converted into cargo carriers. This means cargo

traffic will probably increase. Air cargo traffic worldwide is growing dramatically because of growing trade and falling costs. Recognizing the upsurge in air cargo traffic, a recent issue of Forbes magazine refers to these cargo carriers as the "21st-century truckers."

The Soviet impact on Alaska's international air traffic business is more difficult to judge because of its political nature. Many people in the business believe that political uncertainty will prevent most air carriers from pulling out of Alaska completely. The Soviet Union is also one of the few nations which charges an air rent for the use of its air space and landing costs are considerably higher than in Anchorage. Developments in this amphitheater will have to be watched closely.

There are a number of promising possibilities for growth in the international air arena. Some ideas include:

- Attracting freight forwarders, such as the Flying Tigers, which use Anchorage as a hub to consolidate freight and then deliver to various national and international markets.

- More trade between international markets and Alaska.

- Tapping more of the transit international air passenger traffic for tourism.

Presently most of the internationally bound passenger airlines do not want to block seats for Anchorage because they would rather fill seats for the entire trip. The Anchorage International Airport Tourism Marketing Council and the state are now actively seeking ways to tap into the international tourist traffic.

Fallout from "Glasnost" may reintroduce direct flights between Alaska and the Soviet Union. This would mark a resumption of direct Soviet-Alaska flights which ended in the early 70s. MarkAir and Alaska Airlines have applied for air rights to Provideniya. Governor Cowper plans to be on the inaugural flight in late May or early June of this year.

Fallout from "Glasnost" may reintroduce direct flights between Alaska and the Soviet Union.

Figure 3
Anchorage International Airport Passenger and Freight Traffic, 1980-1987

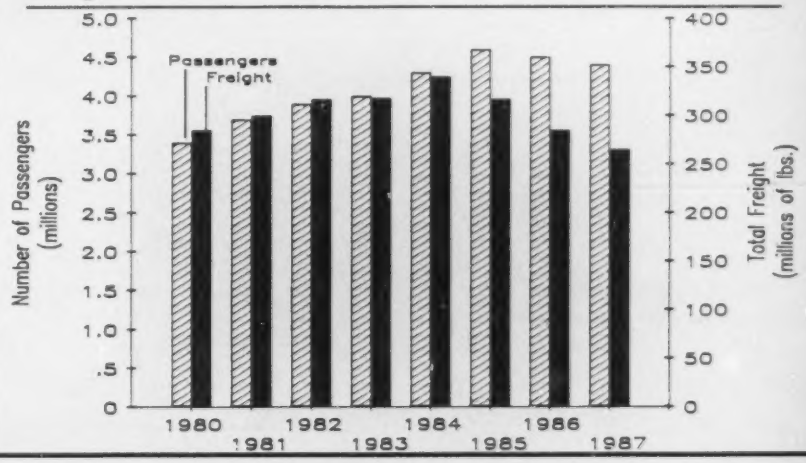
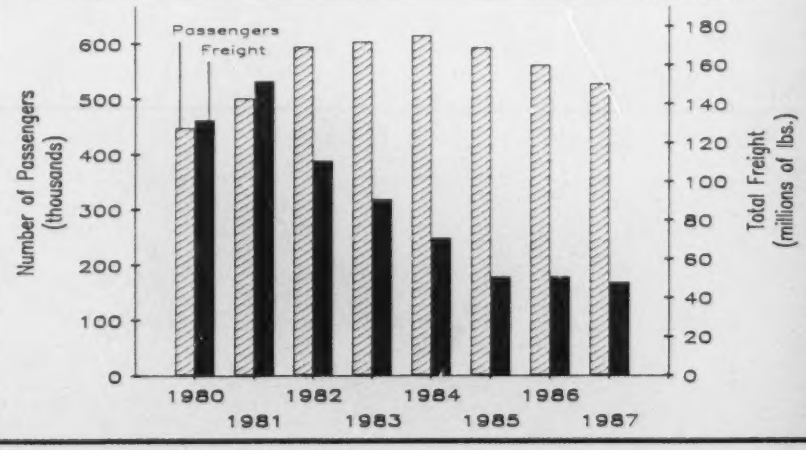


Figure 4
Fairbanks International Airport Passenger and Freight Traffic, 1980-1987



Alaska Aviation Superlatives

Compared to the rest of the nation Alaska has about eight times as many pilots and 15 times as many aircraft per capita.

There are a total of 10,500 pilots: 2,763 commercial, 4,733 private, and 1,039 airline transporters.

Alaska has three times as many air passengers per capita as the rest of the United States.

As a percentage of total employment, the state's work force devotes three times the number of jobs to the air transportation industry as the rest of the nation.

Five out of Alaska's top fifty employers are in or support the air transportation industry. They include: Alaska Airlines, MarkAir, International In-Flight Catering, ERA Helicopters and Reeve Aleutian.

The air transportation industry paid out $145 million in payroll in 1986.

4.3 million passengers and 265 million pounds of freight in transit touched down at Anchorage International Airport in 1987.

Anchorage International Airport is the busiest international transit cargo airport in the nation.

About 95% of all Asia-Europe bound and 70% of Asia- "Lower 48" bound air cargo goes through Alaska.

Lake Hood is the largest and busiest seaplane base in the world.

Alaska has the largest number of seaplane bases in the nation, with 110 compared to Minnesota's 64.

There are 988 airports and airstrips in the state.

More books have been written about Alaska's flying heroes than any other profession in the state.

Conclusion

During the past two years, air transportation activity fell victim to the statewide recession. Nineteen eighty-five was the last year this industry posted employment growth. Passenger and cargo traffic fell in the state's major airports in 1986-87 (Figures 3 & 4). However, not all of air transportation's business fell. The number of transit passengers grew in 1987 at Anchorage's international terminal. Load factors of these planes went up in 1987 due to the increased value of the yen and German mark. Small airline employment continued to grow uninterrupted. Employment losses were concentrated in the larger carriers, where shadows of deregulation may still linger.

In early 1988 employment in the industry began to level off, and if the economy rebounds as predicted, Alaska air transportation will follow suit. Nationally and worldwide the industry is booming. Shortages of qualified pilots and airports are plaguing the industry. This is a switch from five years ago when there was a surplus of pilots.

Some predict Alaska's airline industry will follow the national trend of consolidation. The nature of Alaska's market, however, will favor a more diverse industry because of the different demands put on the business here and the dispersed nature of the state. There is little doubt that air transportation will remain the largest sector of the state's transportation network. Alaska will remain the country's most airborne state.

Rail Transportation in Alaska

By Greg Huff

Rail transportation is an important link in Alaska's development. Over twenty railroads operated in Alaska since the late 1800s. Railroads hauled hundreds of millions of tons of coal, gold, copper and other minerals from inland mines to tidewater ports. and transported millions of passengers. As the minerals played out or were no longer profitable, mines closed, community populations dwindled and slowly the railroads disappeared. Today two operational railroads remain in Alaska and only one, the Alaska Railroad (ARR), is fully operational. The other, White Pass and Yukon Railroad (WP & YR), is only providing limited summer passenger service.

These two railroads have had long histories in Alaska, far longer than any other Alaskan railroads. In long-term economic effects the ARR has, by far, had the most impact. This article explores the past of the these two remaining railroads and discusses their current and future outlook.

White Pass and Yukon Railroad

The oldest of the two existing Alaskan railroads, The White Pass and Yukon Railroad, operated between 1900 and 1982. After a six year closure, the line will start limited operations again this summer. The new operations are limited to passenger service and will travel from Skagway to White Pass and return, a three hour round trip through 49 miles of spectacular scenery. The primary customers will be tour ship passengers. In the past the train traveled to Whitehorse and was a key transportation link to the rich Yukon mineral deposits.

Over twenty railroads operated in Alaska since the late 1800s.

Construction began on this narrow gauge railroad in 1898 and ended in 1900. The 110 miles of track (20 miles are in Alaska) provided a transportation link between the Yukon gold fields and tidewater. The railroad was profitable for some 20 years, but when gold production fell off in the 1920s and 1930s the railroad experienced many hard years.

The White Pass & Yukon revived during World War II. The railroad hauled military equipment from Skagway to the interior for construction of the Alcan Highway and Conal pipeline system. After the war the railroad returned to civilian management, in poor shape due to heavy use.

During the 1950s the line was upgraded and modernized. Revolutionary at the time, the railroad (in connection with its barge lines) introduced the first containerized freight service in Alaska.

The railroad remained operational until 1982 when mineral prices made the Cyprus-Anvil mine in the Yukon uneconomical to operate. Without ore haulage the railroad could not maintain a profitable operation. Before closing in 1982, the railroad carried about 600,000 tons of freight and 65,000 passengers annually. When the railroad closed it took about 160 year-round jobs and over 4.5 million in annual payroll from Skagway's economy.

The start-up this summer creates some 20 jobs for the summer months in Skagway, but without new developments the days of this railroad as a large employer are over.

The Alaska Railroad

The concept of the Alaska Railroad (ARR) existed for at least two decades before its construction. In fact, two companies attempted to build a railroad on the route of the present day ARR. The first attempt was the Alaska Central Railroad. Construction started in 1904 with its primary goal of reaching the rich coal fields in the Matanuska Valley. Four years and only 51 miles of track later the company was bankrupt. The Alaska Northern Railroad acquired the defunct railroad in 1908 and built an additional 21 miles of track to Kern (near Girdwood). However, without money to continue construction or operate the railroad's days were numbered.

By 1914, legislation passed empowering the President to buy or construct a railroad not more than 1,000 miles in length. The railroad was to connect Alaska's interior navigable waterways and rich coal and mineral deposits with an ice-free harbor. Two route proposals existed—Alaska Northern's Seward to Fairbanks route and the Copper River and Northwestern Railroad's proposed route from Cordova to Fairbanks. The federal government decided for the Alaska Northern route and purchased the 72 miles of existing track.

The "Government Railroad" project started in April 1914 with an initial appropriation of $35 million. Completion of the project occurred nearly ten years later in July 1923. The cost was $60 million and the 481 miles of mainline track was renamed the Alaska Railroad. It was the first frontier railroad financed entirely by the federal government.

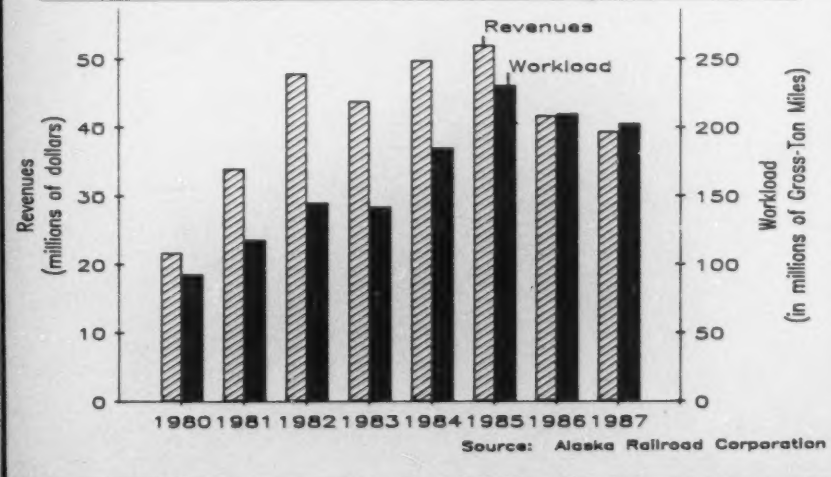
The railroad was built, but completion only connected the tracks from Seward to Fairbanks. Work remained before the ARR was on par with lower 48 railroad standards. However, that work was not to be done for some time. From 1924 to 1945 the railroad received no capital or operating appropriations from Congress and the railroad could not finance improvements due to the general lack of economic activity along the line. Deterioration of the already marginal railroad prompted some government officials to call for abandonment of the line.

World War II prevented the Alaska Railroad from being abandoned. The military provided ARR with a sharp increase in traffic, needed income and a link to Whittier. The 3.5 miles of tunnels to Whittier were completed in 1943, cutting the distance from Anchorage to ice-free tidewater by 51 miles. However, even with military assistance the railroad's equipment and property were in no better condition than before the war.

After the war the federal government considered abandoning the ARR, but decided to rebuild instead. By the end of the rehabilitation period in the early 1950s, at a cost of over $95 million, the railroad was complete. During the 1960s two events caused long-term changes in the character of the railroad; initiation of railcar barge service between Alaska and both Canada and the continental U.S. and opening of year-round container ship service to the Port of Anchorage. The most important event was the railcar barge service. This service gave additional options to Alaska shippers and made it possible to ship items directly to Alaska without reloading in Seattle and Alaska ports.

In the 1970s another event transformed the railroad into its present form. During the construction of the trans-Alaska pipeline between 1974 and 1977 the railroad carried its most profitable volumes of traffic since World War II. More important the rail-

Figure 1
Alaska Railroad Revenues and Workload, 1980-1987



road emerged from a period of heavy usage in better physical condition than it was at the beginning of the period. An infusion of federal dollars and equipment saw to that.

The Alaska Railroad in the 1980s

During the early and mid 1980s the railroad experienced several changes, the most important being a transfer from federal to state ownership.

While discussion about a transfer of the ARR to state ownership had taken place since 1968, it was not until January 5, 1985 that the transfer happened. Alaska purchased the railroad from the federal government for $22.3 million. The Alaska legislature created a public corporation called the Alaska Railroad Corporation (ARRC) to operate the railroad and manage its properties. In addition to the purchase price, the state contributed $11 million for initial working capital and capital expenditures.

With three years of operation under its belt the ARRC has made a profit in two of the years. The railroad has increased retained earnings by over $2 million to $9.2 million (Table 1) and has received no subsidies from the state. This happened during a time of declining freight tonnage and revenues caused by a sagging Alaskan economy.

Operations

The railroad has 481 miles of mainline track extending from Seward and Whittier through Anchorage to Fairbanks. Branch lines extend to Eielson Air Force Base, Anchorage and Fairbanks International Airports, Palmer, and Usibelli Coal Mine.

The principle freight of the railroad is bulk products such as coal, petroleum products, sand and gravel, pipe and freight classified interline and TOFC/COFC (Trailer-on-flatcar/Container-on-flatcar). The ARR also has an extensive passenger operation.

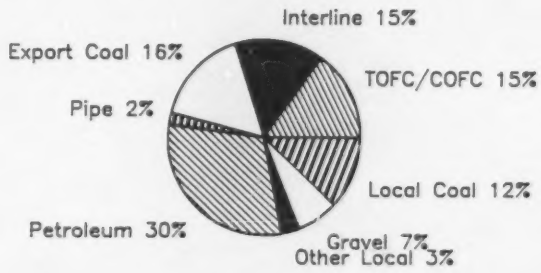
Freight Market

Two types of freight travel the railroad: Local freight and freight with connections to trucking lines and water carriers. Total freight revenues and ton-miles (one ton of revenue generating freight travelling one mile) from 1980 to 1987 are illustrated in Figure 1.

The railroad also hauls drilling pipe from Whittier and Seward to Fairbanks, where it is transferred to trucks and delivered to the North Slope. The impact of slumping oil prices on drilling activity resulted in a dramatic drop in pipe freight from the peak of 74,000 tons in 1985.

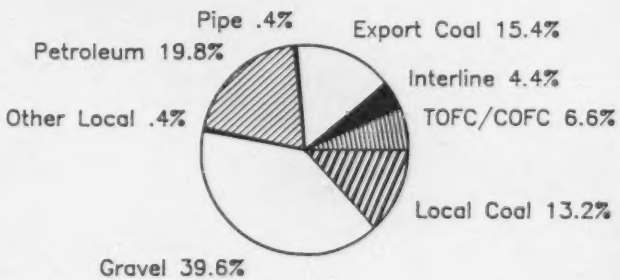
The export component consists almost exclusively of coal shipments to Korea. The Usibelli coal mine began exporting coal to Korea in 1985, when they struck a deal with Suneel Corporation. The coal is exported out

Figure 2
Overview of Freight Markets, 1987 Revenues



Source: Alaska Railroad Corporation

Figure 3
Overview of Freight Markets, 1987 Gross Tonnage



Source: Alaska Railroad Corporation

of the Seward coal port facilities. This $21 million coal facility was constructed in 1984 and can handle 4 million tons of coal per year. In 1985 the railroad hauled 57,000 tons and approximately 600,000 to 700,000 tons each year since. Usibelli's contract with Suneel runs until 1992 and calls for as much as 900,000 tons of coal to be exported each year.

Freight is also transferred from the ARR at Nenana to river barges. This helps connect the railroad to communities along the Tanana and Yukon rivers.

Passenger Service

The passenger service provided by the ARR includes three primary routes: Anchorage-Denali-Fairbanks, Portage-Whittier and Anchorage-Seward. The shuttle service between Portage and Whittier is the ARR's most traveled passenger route followed by the Anchorage/Fairbanks and Anchorage/Seward routes.

Passenger trains to Seward began regular service in 1986, after a 30-year absence. Although the railroad was the original link between Anchorage and Seward it was discontinued when highway travel became more popular.

Table 1
Alaska Railroad Corporation
Revenues by Commodity and Other Key Figures
(in millions of dollars)

	1985	1986	1987
Commodity			
Pipe	$3.3	$2.2	$.7
Coal	9.4	10.1	11.2
Petroleum	11.8	10.2	11.6
Gravel	7.8	4.1	2.7
TOFC/COFC[1]	7.0	7.6	5.8
Interline	10.5	6.7	6.1
Misc. Local	2.1	.8	1.2
Total	52.0	41.7	39.4
Passenger	4.3	4.6	5.4
Real Estate	4.3	5.3	5.2
All Other	6.6	6.6	3.7
Total	15.3	16.5	14.3
Total Revenue	67.2	58.1	53.7
Total Expenses	60.1	59.1	50.7
Net Profit (Loss)	7.1	(1.0)	3.0
Retained Earnings	7.1	6.1	9.2

Source: Alaska Railroad Corporation
TOFC/COFC: Trailer-on-flatcar and Container-on-flatcar

The Whittier route is the only means of overland transportation to and from Whittier. The shuttle transports many Anchorage commercial fishermen and pleasure boaters who have their craft moored in Whittier. Passengers from the Alaska Marine Highway Systems route between Valdez and Whittier and tourists from tour ships docking at the Whittier Port also travel this route.

Local freight travels strictly between ARR served origins and destinations. It includes: coal moved from Healy to power plants at Clear Air Force Station, the University of Alaska in Fairbanks, Fort Wainwright and Eielson Air Force Base; gravel moved from Palmer to Anchorage transfer sites; and petroleum products between Fairbanks and Anchorage. The OWL (Oil Worker Limited) train transports jet and motor fuel from the petroleum refinery at North Pole to Anchorage daily. The OWL returns to Fairbanks with gasoline and other petroleum products. Revenues and tonnage generated from these sources are illustrated in Figure 2 and the change in revenues are contained in Table 1.

Revenues generated from gravel haulage were down 65% from 1985 levels, due to declining construction activity in Anchorage. In 1987, gravel contributed nearly 40% of the railroad's total tonnage (Figure 3), yet only 7% of its revenues.

Interline traffic is the interchange of goods between ARR and either Alaska Hydro-train or Canadian National Railway through the car-barge facility at Whittier. Currently, freight originating from the West Coast arrives from Seattle aboard Alaska Hydro-train and freight originating from the Midwest, East and Canada travels via the Canadian National Railway, from Prince Rupert to Whittier. In 1987, this freight component represented $6.1 million in revenues, down from $10.5 in 1985 because of a weak railbelt economy.

Currently, TOFC/COFC traffic originates from Seattle to Anchorage by Totem Ocean Trailer Express (TOTE) and Sea-Land Services (Sea/Land). However, in 1985 a new truck trailer "roll-on and roll-off" barge service was introduced between Seattle and Seward for transfer to the

ARR. This service increased the railroad's market share of containerized cargo, but the barge company went under after two years. In 1987, the TOFC/COFC comprised 15% of revenues and 6.6% of the tonnage. Because of a down economy revenues from this source fell 24% below 1986 levels (Table 1).

The biggest increase in ARR's passenger load (Figure 4) can be attributed to the growing number of port calls by cruise ships. In 1983 nine ships stopped at Whittier, by the next year the number had nearly doubled and by 1987, port calls totaled 57. Tour ships are also docking at Seward, 19 calls in 1987 and 30 expected in 1988. The impact on railroad passenger counts is not as large as port calls to Whittier because of the highway link between Seward and Anchorage.

The most popular destination on the Anchorage-Denali-Fairbanks route during the summer months is Denali Park. Increased tourism and an increasing number of tour companies booking ARR travel makes the future look bright for this run. In 1984, the ARR began hauling sky domed cars purchased by Alaska Tours and Westours on its Anchorage-Denali-Fairbanks run, which has proved to be very successful.

This type of agreement reflects the railroad's new emphasis on passenger marketing. The ARR devised a contracting arrangement similar to that used in freight marketing and the ARR works in cooperation with tour operators, tour wholesalers, and travel agents.

Although passenger service has grown, the services still do not make money. The past few years the summer runs have covered operating expenses. The purchase of specially rebuilt self-propelled diesel railcars in late 1985 helped reduce the cost of wintertime rail service and made the service to Seward viable.

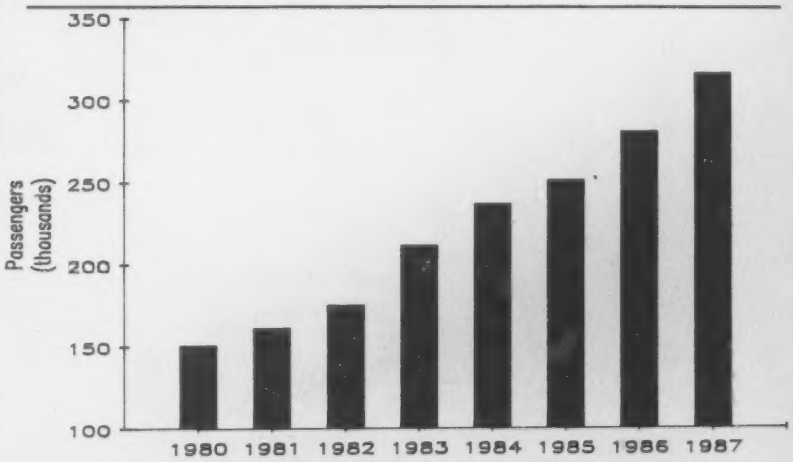
Real Estate

The ARR controls approximately 38,000 acres of land from the port of Seward, Whittier and Anchorage inland to Fairbanks. Rentals received on leased real estate consist of about 10% of total revenues. These revenues provide a buffer for the lean times. Railroad officials state that real estate rental is one of the most profitable portions of railroad operations.

Work Force

The work force patterns follow the same trends as freight revenues and ton-miles. When traffic load increases so do jobs available with the railroad. During the boom of the 1980s employment levels peaked at 712 in 1984 as freight volumes were beginning to peak. The economic downturn beginning in 1986 forced employment down to 599 by 1987. The hardest hit community, in terms

Figure 4
Alaska Railroad Total Passengers 1980-1987



Source: Alaska Railroad Corporation

Table 2
Alaska Railroad Employment
By Location
1980-1987

	1980	1981	1982	1983	1984	1985	1986	1987
Nenana	6	6	6	4	4	3	4	4
Healy	41	22	19	19	19	17	16	13
Fairbanks	85	101	84	73	78	74	80	68
Summit/Talkeenta area	18	17	15	14	14	15	17	15
Wasilla	3	3	3	3	3	3	4	4
Eagle River	9	9	8	10	11	12	13	10
Anchorage	469	495	552	559	566	551	534	434
Moose Pass	6	6	7	6	5	6	6	4
Seward	6	5	5	5	8	13	13	10
Whittier	6	5	6	5	4	6	6	.4
Total	649	669	705	698	712	700	693	566

Source: Alaska Department of Labor, Research and Analysis.

of jobs lost, was Anchorage, where 100 railroad workers were laid off in 1987. Employment by geographic distribution is contained in Table 2.

Market Competition

The ARR is virtually free from competition in the transportation of bulk natural resources (coal, gravel and petroleum) because they are usually unsuitable for road haulage. The Interline and TOFC/COFC market is a different matter.

Cooperatively, the railroad receives piggyback traffic bound for Fairbanks from Sea/Land and TOTE, but it also indirectly competes with these firms with rail deliveries to Anchorage via railbarge from the Port of Whittier. The ARR is a major player in the competition between containerships and railbarges for sea delivery from the lower-48 and Canada. Overall, the ARR estimates it has about one-third of this market.

The ARR also has an impact on which port handles deliveries to the railbelt. For example, drilling pipe delivered by the railroad from Seward or Whittier to Fairbanks bypasses the ports of Anchorage and Valdez. Lumber and building products delivered by the railroad to Anchorage via the Port of Whittier bypasses the Port of Anchorage even though Anchorage is the cargo's destination.

The shippers' choice of carriers is usually based on price and service characteristics such as the value of cargo and delivery requirements. Deregulation of the railroad by the passage of the Staggers Rail Act of 1980 made it easy for the ARR to react to market forces. This strengthened ARR's competitive position in the interline and TOFC/COFC markets.

Future

What does the future hold for the Alaska Railroad? Railroad officials are confident the railroad can continue to be profitable, even during times of falling revenues and tonnage. After two lean years indications are that revenues will increase in 1988 due to increased interline and TOFC/COFC freight volume.

What about expansion of the railroad to new areas? Construction costs at $2 to $3 million per mile make expansion too risky at this juncture. Furthermore, the ARR does not have the financial muscle to undertake a major expansion. There would need to be a coordinated effort by state government and private enterprise for expansion to occur.

The proposed move of the main ARR yard from Ship Creek to Eagle River is currently on the railroad's long term plan. As with an expansion, the ARR does not have enough financial strength to accomplish the move by itself.

A key element of the ARR's plans for the future call for an aggressive marketing program. The effort will establish the identity of the Alaska Railroad throughout the Northwest and Alaska shipping communities. One of the main goals of the ARR will be to provide competitive pricing.

The primary factor in ARR's long term success is the haulage of natural resources, raw and refined. This will continue to be the railroad's "bread and butter" for the foreseeable future.

Conclusion

The Alaska Railroad has shaped Alaska's past and will have an opportunity to influence the state's future. By most measurements the ARR has been a success. It has connected Interior Alaska with open Pacific ports and assisted in developing the urban communities in the "railbelt" of Alaska. In 1920, about 10% of Alaska's population lived in the railbelt; today it is home to 70% of Alaska's residents.

After 71 years of federal ownership the fate of the railroad is now in the state's hands. The state struck a good deal when it purchased the railroad. With its debt wiped clean and an infusion of state start-up capital the ARR had a new beginning. After three years of state ownership the railroad has remained profitable and the track has been upgraded to its best condition ever. This makes the Alaska Railroad a transportation asset to the economy of Alaska.

Truck and Water Transportation in Alaska

By Brian N. Rae

One of the greatest impediments to Alaska's growth has been the inability to easily and inexpensively transport goods and products. Transportation costs decreased dramatically and promoted both economic and population growth in the state with the opening of the Alcan Highway in 1943. Further road construction and innovations in freight handling techniques have continued to lower costs and increase growth. However, much of Alaska still must rely on either water or costly air for all long distance transportation. For lowest cost transportation, truck and water are the only available options for most of the state.

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Transportation Corridors

Over 15,000 miles of highway serve various parts of the state. The Alaska Marine Highway System (AMHS) accounts for 2,300 of these miles, or about 15% of the total. The AMHS links Southeast Alaska with both Prince Rupert, B.C. and Seattle, a total of 700 additional miles. For many communities in Southeast, Kodiak and the Aleutians the AMHS offers the only link to mainland road systems. It also plays a vital role in both passenger and freight transportation.

Exact figures are not available for navigable waters in the state—the term itself being open to debate—but Alaska's coastline is 33,900 miles long. Commercial freight lines serve communities as far north as Barrow and pipeline facilities on the North Slope. The Yukon, Tanana, and Kuskokwim rivers and their tributaries are important shipping routes for the communities along their banks. The Department of Natural Resources estimates navigable **inland** waters at 550,000 miles. (This figure includes all rivers over 70 feet wide, usable by raft, boat, or float plane.) Since the state does not regulate waterway usage, these routes are open to anyone. While not all are now used for transportation, the majority of these are used for activities ranging from barge transportation to recreation.

The road system in the state is less extensive. The state oversees about 5,500 miles of land highways, while municipalities and boroughs oversee more than 2,500 miles. An additional 2,900 miles of road, usually owned by the federal government or private entities, are available for public use. The federal government is a major provider of moneys for highway construction, supplying funds for both the state and local governments. After construction, the federal government transfers responsibility for maintenance.

Historical Trends

In 1960, provisions regulating intrastate trucking were imposed in the Alaska Motor Freight Carrier Act. Various parts of the act addressed safety measures, competition, and rates. In 1970, major revisions to the act strengthened the state's regulatory and enforcement authorities. The Alaska Transportation Commission took over the responsibility for enforcing the act from the Alaska Public Services Commission.

Compared to most regulatory agencies, the commission took a less restrictive course of action. Market forces played an important role in setting tariffs and allowing new entries into the industry. The commission was abolished in March 1985, after legislation was enacted requiring minimum insurance coverage and semi-annual safety inspections for trucks. The Interstate Commerce Commission regulated interstate trucking, which falls outside the jurisdiction of individual states. In 1980, this industry was deregulated by the federal government.

The federal government also regulates interstate and international water transportation through several different agencies. As in other transportation sectors, the 1980s have brought about federal deregulation. Unlike trucking, the state has never regulated the water transportation industry.

The trucking and water transportation industries had an average combined employment of about 3,600[1] between 1980 and 1987. Trucking, warehousing and storage (trucking) had the majority of these jobs, averaging 2,300 during that time frame. Water transportation employment averaged 1,300. Compared to many other Alaskan industries, both have been relatively stable in the post-pipeline years.

[1] Does not include self-employed or unpaid family members, a significant portion of the trucking industry because of independent operators.

Both industries, trucking in particular, seem more insulated from market shocks than do most other industries. Most companies contacted have diversified their operations over the years, both by expanding into other industries and broadening their clientele. Although some firms are still dependent on one product or client, this is no longer the norm in these industries. In water transportation, freight carriers operate in much the same way as railroads. Interchange agreements allow a company to transport another company's container, so a firm will often transport a competitor's containers.

Trucking employment was at a low point in 1980, with only 2,000 jobs statewide. In 1981-82, employment increased to higher than normal levels, with gains experienced throughout the state. Since 1983, statewide annual average employment has remained close to the 2,300 mark. Not all regions of the state have experienced this stability.

Water transportation employment showed extremely stable employment levels from 1980 through 1985 at the statewide level. Annual average employment ranged from 1,325 to 1,410 during this six year period. Like trucking, this stability was not clear in all regions. In 1986, employment fell by almost 200, and fell an additional 150 in 1987.

Regional Trends

One clear relationship can be drawn between regional employment levels for the water transportation and trucking industries—one industry usually dominates. Statewide, between 1980 and 1987, annual average trucking employment has represented 59% to 69% of combined water and truck transportation employment.

The Anchorage/MatSu region trend has held fairly steady with 75% to 85% of employment in the trucking sector. Employment in water transportation has been very stable, with some small gains between 1982 and 1984. Since that time, employment fell slightly but gained somewhat in 1987 (Figure 1). Trucking has shown less stability over the period, but has grown since 1980 by over 400 in employment. Over the period,

Figure 1
Trucking Transportation
Percentage Total Employment by Region

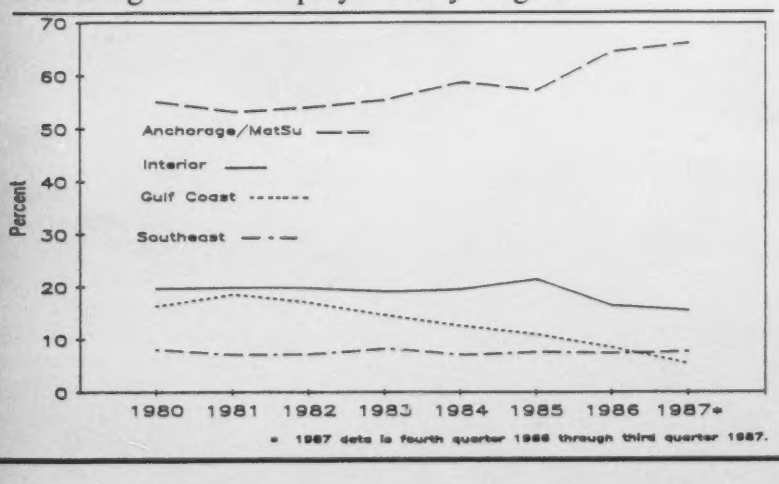


Table 1
Annual Average Employment by Regions

Area	Year 1980	1981	1982	1983	1984	1985	1986	1987*
Northern								
Trucking	1	3	6	12	9	19	7	31
Water	203	271	273	232	204	200	155	88
Total	204	274	279	244	213	219	162	119
Interior								
Trucking	401	478	489	429	458	483	372	360
Water	44	53	74	73	65	62	48	51
Total	445	531	563	502	523	545	420	411
Anchorage								
Trucking	1120	1274	1335	1247	1372	1286	1467	1544
Water	303	310	303	342	360	330	274	266
Total	1423	1584	1638	1589	1732	1616	1741	1810
Southwest								
Trucking	15	23	36	42	37	46	60	73
Water	76	94	71	75	79	71	88	87
Total	91	117	107	117	116	117	148	160
Gulf Coast								
Trucking	333	447	422	329	293	246	193	127
Water	155	139	155	139	191	248	149	98
Total	488	586	577	468	484	494	342	225
Southeast								
Trucking	165	170	180	188	165	172	168	181
Water	608	542	447	486	452	470	464	431
Total	773	712	627	674	617	642	632	612
STATEWIDE								
Trucking	2035	2395	2469	2248	2335	2252	2273	2330
Water	1392	1410	1323	1347	1351	1381	1192	1043
TOTAL	3427	3805	3792	3595	3686	3633	3465	3373

*1987 data represents a four quarter average from 4th quarter 1986 to 3rd quarter 1987.

Source: Alaska Department of Labor, ES-202 File.

Anchorage/MatSu has increased its share of employment in both sectors.

Water transportation has been the predominant sector in the Southeast region. Southeast water employment was quite high in 1980, but dropped nearly 25% over the next two years. This was brought about by the dollars appreciation against the Japanese yen. Demand for Alaska timber dropped sharply due to a depressed Japanese housing market. Since 1982, the water transportation sector has been quite stable with annual average employment around 450. Even with the 1980-82 drop, Southeast has dropped only slightly in its share of statewide water transportation employment. For trucking employment, Southeast has shown only slight growth during the period, but has remained quite stable with employment around 175.

The Interior region relies heavily on trucking, with employment levels stable between 400 and 500 between 1980 and 1985. Since 1986, employment has shown some weakness. Water transportation in the Interior mainly serves remote communities on major rivers, delivering bulk and nonperishable items.

Gulf Coast trucking employment showed gains similar to statewide movements in 1981 and 1982, but did not stabilize and continued to decline through 1987. The Gulf Coast lost almost two-thirds of its share of statewide trucking employment between 1980 and 1987. Expectations surrounding events in Seward can be blamed for part of this loss. Water transportation was quite stable until 1984, when employment increased rapidly in response to ventures using the Seward terminal by VECO Alaska,

SeaWay Express, and Alaska Marine Towing (Table 1). Employment hit its peak in 1985 and then declined rapidly as the planned expansion did not materialize. Increased shipments by the Alaska Railroad through Whittier hurt the Seward economy. SeaWay Express, AK Marine Towing and VECO Alaska filed Chapter 11 bankruptcy proceedings. Their subsequent retraction from Seward sent transportation employment to its lowest level in the eight year period.

Occupational Structure

Water transportation leads trucking in the percentage of laborers employed. Over 80% of employees are in the crafts, operators, and laborers designation. Stevedores alone make up over 25% of the employment, and longshore equipment operators make up an additional 16%.

Slightly over 70% of employment in the trucking, warehousing and storage industry is in the crafts, operators and laborers sector. Of these, almost one-half are heavy truck or tractor trailer drivers and 20% are light truck and delivery drivers. This industry employs a much higher percentage of office staff than does the water transportation industry. On a percentage basis, it has almost twice as many clerical workers and three times as many officers and managers.

Trucking also employs a higher percentage of Alaska residents. In 1986, nonresidents made up 14.9% of all employees, as reported in *Nonresidents Working in Alaska 1986*. These workers collected 9.4% of total earnings. The water transportation industry, with extensive operations in ports outside Alaska, employed 19.7% nonresidents who collected 18.3% of the industry's earnings.

Water and Truck Transportation Trends

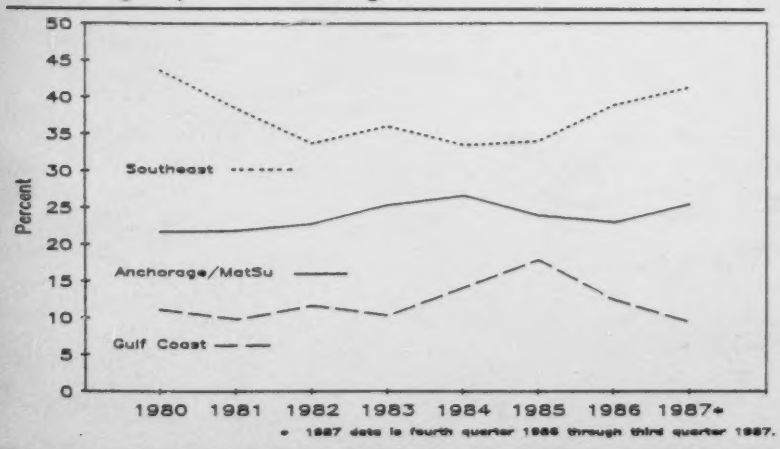
Competition has helped drive down the cost of transporting freight in Alaska. Following the abolition of the Alaska Motor Freight Carrier Act, many new firms entered the trucking industry. According to a House Research study, in 1985 over 500 new long-distance trucking firms applied for licenses. (This does not include local trucking, outside the scope of the House Research study.) During the same time trucking rates fell, which could not happen under the regulated rate structure of the Alaska Transportation Commission.

Water transportation still handles the greatest tonnage of freight in Alaska. Water transportation was critical to Alaska's early settlers, who located their communities to accommodate this need. Even after truck transportation was possible, the vast area of the state made this option too expensive to pursue. Air transportation filled the need for rapid transportation of perishable goods, and water transportation supplied the durable goods. Because of Alaska's unique evolution in transportation, it will be many years before other transportation sectors can compete with water transportation's inherent advantages in rural Alaska.

One controversial regulation, insulating the maritime industry from foreign competition, is the Jones Act. (The act is more correctly referred to as the Merchant Marine Act of 1920.) Under this act, all transportation between American ports must be done with ships built and registered in the United States. The Alaska Statehood Commission, in their final report released in January 1983, states that:

> "(T)he act adds $41 million a year to the cost of goods coming into the state, and thereby helps raise our cost of living. But the worst effects of the Jones

Figure 2
Water Transportation Employment
Percentage by Selected Regions



Act are those on the state's revenues from oil and on the future of state mineral development. Each year ... the state treasury is denied from **$63 to $176 million in oil revenues.**" (Original emphasized.)

Not everyone agrees with this rationale, including some who testified before the Commission. It was argued that legislation similar to the Jones Act exists in most maritime countries, and in other industries in the United States. The act was not seen as protecting the water transportation industry. Proponents said the act protects the country's national security and political interests, at very little added cost to consumers. It was even argued that any added costs were evenly distributed when one looked at all government programs. For example, the costs for the Coast Guard, only available to people using waters under the Coast Guard's jurisdiction, were seen as inequitable but in the public's best interest. Likewise, setting a 200 mile fishing limit protects United States fishers at the expense of consumers.

The Rural Research Agency of the Alaska Senate reported in 1986 on freight transportation in rural Alaska. The report found freight services and tariffs quite unstable. Many remote communities are forced to rely on one type of service, with little recourse to rate fluctuations. One of the few moderating forces on tariffs is the presence of federally subsidized freight systems. These include the U.S. Postal Service and the BIA Cool Barge. The instability extends beyond the state level, however, as national and world freight rates show strong cyclical tendencies.

The report expected rural freight rates to increase because the industry was then at the low point of a cycle. This would be worsened by other factors. Decreased tonnage moving into rural Alaska, increased insurance rates and decreased competition would cause rates to rise. These expectations have proven to be correct. Since January 1987 three rate hikes have taken place in the water transportation sector. Shipping costs have increased by 24.2%.

The agency found that freight charges contributed only a small part to the cost of living differences for rural Alaska. In general, freight charges add 10% to 15% to the costs of goods in rural Alaska, while the cost of living differentials range from 26% to 45% more than that of Anchorage.

For example, fuel accounts for 80% by weight of freight shipped into rural Alaska. Most of this is shipped by water or truck. The House Research Agency looked at the costs of fuel oil in two villages in western Alaska in 1983. It found that the retail price was $1.23 to $1.31 higher per gallon than the wholesale price at the California refinery. Transportation costs and dealer markup account for this increase. Dealer markup, which includes inventory, labor and administrative costs and profits, accounted for $0.47 to $0.68 of this increase. Transportation costs can be compared over three segments of the trip. The California to Dutch Harbor segment cost the least, while transportation from distribution centers in Bethel or Kotzebue to the villages added $0.31 to $0.325 to the fuel's cost.

Outlook

Water transportation employment, after two years of losses, should stabilize near 1987 levels. Although this sector has a captive market in much of rural Alaska, competition with other sectors in transportation could be a problem. There might be regional employment swings as firms consolidate operations. More movements could occur by firms expanding into different sectors in the transportation industry.

Much the same outlook is projected for trucking. Although this sector did not show employment declines over the past two years, it did not grow strongly after the lifting of regulations. The trucking sector could face serious setbacks if the air freight industry is able to lower prices and more commodities are moved by the Alaska Railroad.

Alaska's Employment Scene

By John Boucher

Alaska's wage and salary employment increased in March by 2,100 jobs. However, more interesting was the first year-to-year employment gains registered since February 1986 (Table 1). The over-the-year gain was a small one, only 200 jobs, but it was an encouraging sign that the recession has run its course.

Additional employment in the manufacturing and mining industries is the biggest reason for the over-the-year job gain. The manufacturing industry, particularly seafood processing and logging employment, account for 1,900 more jobs in Alaska's economy than they did last March. Seafood processing employment growth translates into a phenomenal 35% job gain over last March. Wood products employment growth is less vigorous but still a noteworthy 15% gain. Without the strength of these two industries, Alaska's economy would still be posting employment losses.

On the unemployment side, Alaska's unemployment rate decreased three-tenths of a percentage point in March to 10.8% (Table 5). The drop signaled the annual turnaround in the unemployment rate for the state. If typical seasonal patterns hold, the unemployment rate will improve from now through the early fall.

Table 1
Nonagricultural Wage and Salary Employment
By Place of Work
Alaska

	p/ 3/88	r/ 2/88	3/87	Changes From: 2/88	3/87
Nonag. Wage & Salary	201,000	199,100	200,800	1,900	200
Mining	8,600	8,500	7,900	100	700
Construction	7,700	7,400	8,800	300	-1,100
Manufacturing	12,100	11,500	10,200	600	1,900
Seafood Processing	6,100	5,900	4,500	200	1,600
Lumber & Paper Prod.	3,000	2,600	2,500	400	500
All Other Manufacturing	3,000	3,000	3,200	0	-200
Transportation	16,700	16,600	16,800	100	-100
Trucking & Warehousing	2,400	2,400	2,200	0	200
Water Transportation	1,000	,900	1,000	100	0
Air Transportation	5,000	5,000	4,900	0	100
All Other Transportation	8,300	8,300	8,700	0	-400
Trade	38,600	38,500	38,400	100	200
Wholesale	7,100	7,100	7,200	0	-100
Retail	31,500	31,400	31,200	100	300
Gen.Mer.& Apparel	4,500	4,600	4,400	-100	100
Food Stores	5,700	5,700	5,600	0	100
Eating & Drinking Pl.	11,100	10,900	11,400	200	-300
All Other Retail	10,200	10,200	9,800	0	400
Finance-Ins. & R.E.	10,600	10,600	11,300	0	-700
Services	39,800	39,400	40,800	400	-1,000
Government	66,900	66,600	66,600	300	300
Federal	17,600	17,700	17,100	-100	500
State	19,500	19,200	19,300	300	200
Local	29,800	29,700	30,200	100	-400

Prepared in cooperation with the U.S. Bureau of Labor Statistics. Government includes teachers in primary and secondary schools, and personnel employed by the University of Alaska.

Benchmark Date March 1987.

p/ Denotes Preliminary Estimates.
r/ Denotes Revised Estimates.

Unemployment Down Sharply from '87

The statewide unemployment rate has dramatically improved since one year ago. Last March the unemployment rate in Alaska was at an all time high) 13.4%. At that time 32,600 Alaskans were unemployed compared to 26,000 this March.

Alaska Department of Labor unemployment insurance claims data, a component in the unemployment estimate, supports the size of the drop in the unemployment rate over last year. Last March, an average of 1,600 new unemployment claims were processed each week. This year that number dropped below 1,200 per week. While unemployment claims are not the only measure used to calculate unemployment, claims do form a solid basis for comparison to last March.

Regionally, unemployment rates generally followed the statewide trend and took a turn for the better. Exceptions were the Northern and Southwest regions of Alaska. There were two notable increases in local area unemployment rates in Northern and Southwest Alaska—the Nome and Bethel census areas.

Further investigation reveals that an increasing unemployment rate for Nome and Bethel is not an uncommon occurrence in March. In fact the increasing unemployment rates may be an indicator of future economic activity in these areas. Summer seasonal work is a factor in both of these economies and the seasonal labor force migrates in and out of the census areas. The increasing unemployment rate in these two areas is a result of unemployed workers moving to Nome and Bethel before starting work. These unemployed persons may spend the majority of their period of unemployment in Fairbanks, Anchorage or some other location. However, they file for their last one or two unemployment checks in Nome or Bethel. The seasonal nature of employment in these census areas leads to increasing unemployment rates immediately before the start up of seasonal activity. In these two cases, an increase in the unemployment rate is an unlikely sign of a return of economic activity to the local area.

Industry Employment

The employment surge in manufacturing was typical for that industry for March. Logging camps begin to prepare for summer and an employment gain of 35% in logging is expected. The processing portion of the industry, sawmills and the two pulp mills, experienced almost no employment change from February to March.

The other component of the manufacturing industry, seafood processing employment, experienced a less than normal increase in March. In an average year the seafood processing sector increases six to nine percent from February to March. This year the February to March gain was only 3.8%. The small employment gain was due to the unusually high employment levels in seafood processing during the December to February period. Normally many seafood processors would be gearing up for summer, but activity in the bottomfish industry in Kodiak and Western Alaska has kept some processors busier than normal. The result is that summer staffing patterns in some processors have changed. They do not need to hire as much additional help because they had crews on for the bottomfish season.

One prominent factor in the return to health of the U.S. manufacturing industry has been the U.S. dollar's fall in relation to most world currencies. Particularly affecting Alaska has been the dollar's slide against the Japanese yen. Japan is the largest market for both Alaska forest products and Alaska seafood. Since 1985, the dollar has fallen 40% against the yen (Figure 1).

In a recent issue of Business Week, currency market analysts predicted that the three year slide of dollar may not have run its course. They also noted that recent attempts to increase the value of the dollar against the yen have been failures. One foreign exchange manager predicted the dollar would drop another 5% in the next two months. This is a good sign for continued growth in Alaska's manufacturing industry during 1988. Alaska's forest and seafood products should become even more competitive in the Japanese market and with the Japanese economy posting a 7% annual gain in the fourth quarter of 1987 there seems to be no impediment to continued growth.

Tourism Outlook: New Destinations Develop While Old Ones Prosper

Alaska's tourism industry continues on the growth path with new destinations being added every season. Prominent newcomers to the Alaskan tourist market this year include: the reopening of the White Pass Yukon

Particularly affecting Alaska has been the dollar's slide against the Japanese yen.

Figure 1
Yen/Dollar Exchange Rate 1977 and 1982 to Present

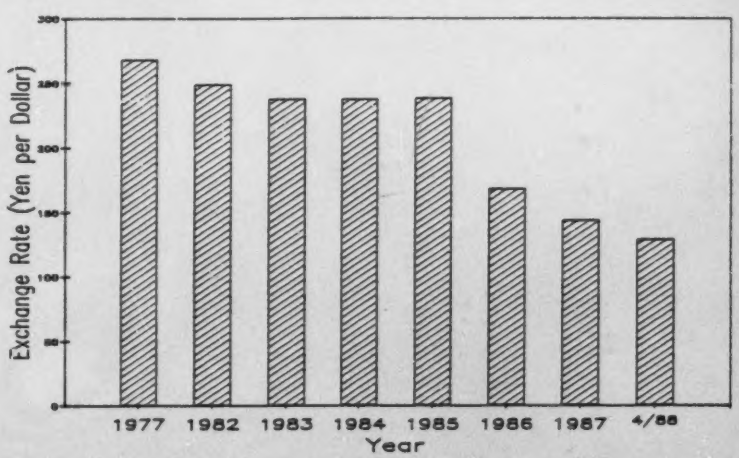


Table 2

Nonagricultural Wage and Salary Employment By Place of Work

Anchorage

	p/ 3/88	r/ 2/88	Changes From: 3/87	2/88	3/87
Nonag. Wage & Salary	96,200	95,850	99,100	350	-2,900
Mining	3,400	3,350	3,250	50	150
Construction	3,900	3,850	4,700	50	-800
Manufacturing	1,900	1,800	2,100	100	-200
Transportation	8,800	8,700	9,000	100	-200
Trucking & Warehousing	1,350	1,300	1,500	50	-150
Water Transportation	300	250	250	50	50
Air Transportation	3,000	3,000	3,000	0	0
All Other Transportation	4,150	4,150	4,250	0	-100
Trade	22,400	22,400	22,450	0	-50
Wholesale	5,200	5,100	5,500	100	-300
Retail	17,200	17,300	16,950	-100	250
Gen.Merch. & Apparel	2,200	2,300	2,150	-100	50
Food Stores	2,900	2,950	2,850	-50	50
Eating & Drinking Pl.	6,600	6,550	6,700	50	-100
All Other Retail	5,500	5,500	5,250	0	250
Finance-Ins. & R.E.	7,050	7,050	7,600	0	-550
Services	22,700	22,700	23,600	0	-900
Government	26,050	26,000	26,400	50	-350
Federal	10,350	10,500	10,100	-150	250
State	7,000	6,850	6,950	150	50
Local	8,700	8,650	9,350	50	-650

Fairbanks

	p/ 3/88	r/ 2/88	Changes From: 3/87	2/88	3/87
Nonag. Wage & Salary	24,100	23,900	24,350	200	-250
Mining	50	50	100	0	-50
Construction	1,150	1,150	1,150	0	0
Manufacturing	500	450	500	50	0
Transportation	2,000	1,950	2,050	50	-50
Trucking & Warehousing	350	350	350	0	0
Air Transportation	300	300	300	0	0
All Other Transportation	1,350	1,300	1,400	50	-50
Trade	5,050	5,050	4,850	0	200
Wholesale	700	700	750	0	-50
Retail	4,350	4,350	4,100	0	250
Food Stores	750	750	650	0	100
All Other Retail	3,600	3,600	3,450	0	150
Finance-Ins. & R.E.	850	850	900	0	-50
Services	5,300	5,200	5,400	100	-100
Government	9,200	9,200	9,400	0	-200
Federal	2,650	2,700	2,700	-50	-50
State	4,000	3,950	3,950	50	50
Local	2,550	2,550	2,750	0	-200

Anchorage-MatSu

	p/ 3/88	r/ 2/88	Changes From: 3/87	2/88	3/87
Nonag. Wage & Salary	102,250	101,900	105,600	350	-3,350
Mining	3,400	3,350	3,250	50	150
Construction	4,100	4,000	4,900	100	-800
Manufacturing	2,000	1,900	2,200	100	-200
Transportation	9,400	9,350	9,650	50	-250
Trade	23,750	23,800	24,050	-50	-300
Finance-Ins. & R.E.	7,500	7,450	8,100	50	-600
Services	23,850	23,750	24,700	100	-850
Government	28,250	28,300	28,750	-50	-500

Interior

	p/ 3/88	r/ 2/88	Changes From: 3/87	2/88	3/87
Nonag. Wage & Salary	27,600	27,300	27,750	300	-150
Mining	150	150	200	0	-50
Construction	1,200	1,200	1,250	0	-50
Manufacturing	500	500	500	0	0
Transportation	2,250	2,250	2,400	0	-150
Trade	5,450	5,400	5,100	50	350
Finance-Ins. & R.E.	950	900	950	50	0
Services	5,550	5,450	5,800	100	-250
Government	11,550	11,450	11,550	100	0

Gulf Coast

	p/ 3/88	r/ 2/88	Changes From: 3/87	2/88	3/87
Nonag. Wage & Salary	18,300	17,950	17,600	350	700
Mining	750	750	650	0	100
Construction	700	650	850	50	-150
Manufacturing	3,250	3,000	2,650	250	600
Seafood Processing	2,600	2,400	2,050	200	550
All Other Manufacturing	650	600	600	50	50
Transportation	1,300	1,300	1,250	0	50
Trade	3,250	3,250	3,150	0	100
Wholesale	400	400	450	0	-50
Retail	2,850	2,850	2,700	0	150
Finance-Ins. & R.E.	600	600	600	0	0
Services	2,950	2,950	3,000	0	-50
Government	5,500	5,450	5,450	50	50
Federal	500	500	500	0	0
State	1,550	1,500	1,500	50	50
Local	3,450	3,450	3,450	0	0

Southeast Alaska

	p/ 3/88	r/ 2/88	Changes From: 3/87	2/88	3/87
Nonag. Wage & Salary	27,350	26,550	27,050	800	300
Construction	800	800	1,000	0	-200
Manufacturing	3,700	3,300	3,150	400	550
Seafood Processing	700	650	550	50	150
Lumber & Paper Prod.	2,800	2,450	2,400	350	400
All Other Manufacturing	200	200	200	0	0
Transportation	1,900	1,850	2,000	50	-100
Trade	4,250	4,100	4,200	150	50
Wholesale	400	350	400	50	0
Retail	3,850	3,750	3,800	100	50
Finance-Ins. R.E.	1,050	1,050	1,050	0	0
Services	4,300	4,200	4,400	100	-100
Government	11,200	11,100	11,200	100	0
Federal	1,900	1,900	1,850	0	50
State	5,100	5,050	5,100	50	0
Local	4,200	4,150	4,250	50	-50

railroad in Skagway; and expansion of tours to the North Slope via the Dalton Highway.

The expansion of bus tours to the North Slope has several implications for Alaska's tourist industry. If the North Slope bus tour reaches its projected level for 1988, Prudhoe Bay could surpass Barrow among Alaska's northern tourist destinations. If growth continues into 1989, Prudhoe would add an Arctic tourist destination on par with Nome and Ko'zebue. Besides the direct benefit to Prudhoe Bay, the increased traffic to Alaska's northernmost parts will have spin-off benefits for Fairbanks. Fairbanks serves as the distribution and transportation center for these northern tours and its lodging and transportation industries will be helped by the additional tourists.

The reopening of the White Pass Yukon route railroad is another attempt in Southeast Alaska to capture tourism dollars. Southeast tourism has traditionally been dependant upon the cruise lines for tourist traffic. While the cruise lines have been a tremendous source of traffic, the self-contained nature of cruise line tours has limited growth in spending on overnight and extended stay packages. If tourists are persuaded to stay in the area longer, a greater amount of tourist spending will result. Last years success of the Southeast Alaska Marketing Council in promoting Southeast Alaska as an independent tourist destination has stepped up efforts of the agency and additional independent tourist traffic should result.

As of this writing, cruise line traffic is up 10% over last year. Cruise/tour packages, which combine cruise trips with off-ship package tours, are currently below last years levels. Discounting of the cruise/tour packages in May could bring those levels closer to 1987. If the cruise/tour packages fail to recover, the independent travelers should fill the void left by the cruise/tour travelers. If discounts fill the cruise/tour packages to 1987 levels overall off-ship traffic should increase in Southeast.

Per Capita Personal Income Falls Again in 1987

Alaska was one of only two states in the nation (Wyoming was the other) to experience a drop in per capita personal income in 1987. Per capita personal income in the state came in at $17,886 a 0.7% decrease from 1987. As recently as 1985, Alaska had the

Table 3
Per Capita Personal Income, 1987

Rank	State	Dollars	Percent of U.S. Avg
1	Connecticut	$20,980	137
2	New Jersey	20,067	131
3	Massachusetts	18,926	123
4	New York	18,055	118
5	**ALASKA**	17,886	117
6	Maryland	17,722	116
7	California	17,661	115
8	New Hampshire	17,133	112
9	Illinois	16,347	107
10	Virginia	16,322	106
11	Delaware	16,238	106
12	Nevada	15,958	104
13	Colorado	15,862	103
14	Minnesota	15,783	103
15	Washington	15,444	101
16	Hawaii	15,366	100
17	Rhode Island	15,355	100
-	**U.S. AVERAGE**	15,340	100
18	Michigan	15,330	100
19	Florida	15,241	99
20	Pennsylvania	14,997	98
21	Kansas	14,952	97
22	Wisconsin	14,659	96
23	Ohio	14,543	95
24	Missouri	14,537	95
25	Nebraska	14,341	93
26	Iowa	14,191	93
27	Georgia	14,098	92
28	Vermont	14,061	92
29	Arizona	14,030	91
30	Oregon	13,887	91
31	Indiana	13,834	90
32	Texas	13,764	90
33	Maine	13,720	89
34	North Carolina	13,155	86
35	North Dakota	13,061	85
36	Wyoming	12,759	83
37	Tennessee	12,738	83
38	Oklahoma	12,520	82
39	South Dakota	12,511	82
40	Montana	12,255	80
41	Kentucky	11,950	78
42	South Carolina	11,858	77
43	Idaho	11,820	77
44	Alabama	11,780	77
45	New Mexico	11,673	76
46	Louisiana	11,362	74
47	Arkansas	11,343	74
48	Utah	11,246	73
49	West Virginia	10,959	71
50	Mississippi	10,204	67

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

B.E.A. Press Release 88-14. April 20, 1988.

Table 4
Alaska Hours and Earnings for Selected Industries [1/2]

	Average Weekly Earnings			Average Weekly Hours			Average Hourly Earnings		
	P/ 3/88	R/ 2/88	3/87	P/ 3/88	R/ 2/88	3/87	P/ 3/88	R/ 2/88	3/87
Mining	1,155.53	1,133.66	1,119.55	49.7	48.2	47.6	23.25	23.52	23.52
Construction	989.42	987.34	887.73	40.5	39.7	38.1	24.43	24.87	23.30
Manufacturing	498.88	453.96	520.38	43.8	38.9	42.9	11.39	11.67	12.13
Seafood Processing	363.31	300.31	319.50	47.0	38.7	45.0	7.73	7.76	7.10
Lumber & Paper Prod	663.94	564.75	624.25	41.6	37.6	41.7	15.96	15.02	14.97
Trans., Comm. & Util.	552.16	569.07	546.87	34.0	35.5	34.7	16.24	16.03	15.76
Trade	354.33	360.88	360.91	32.3	33.2	32.9	10.97	10.87	10.97
Wholesale	520.37	545.36	497.07	37.9	40.1	37.6	13.73	13.60	13.22
Retail	296.33	298.19	312.00	30.3	30.9	31.2	9.78	9.65	10.00
Finance-Ins. & R.E.	367.95	392.50	379.95	33.0	34.4	33.3	11.15	11.41	11.41

Benchmark March 1987

[1] Prepared in cooperation with the Bureau of Labor Statistics US Department of Labor

[2] excludes eating and drinking establishments

AVERAGE HOURS AND EARNINGS SERIES: Averages are based on data for full and part time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing) and are for gross earnings and hours paid, including overtime pay and hours.

highest per capita personal income in the nation. This year's drop placed Alaska fifth among the 50 states, a drop of two positions from 1986.

One encouraging sign from the U.S. Department of Commerce figures was that the rate of income loss slowed considerably from the previous year period. From 1985 to 1986 Alaska per capita personal income dropped at a rate of 2.6%. The drop this year was less than a third of that rate. It is noteworthy that Alaska was one of thirteen states in which the rate of per capita personal income growth was better in 1987 than 1986. Joining Alaska in this improvement were states whose economies are heavily influenced by the oil industry. Texas, Louisiana, and Oklahoma were among the states which in which the growth of per capita income accelerated in 1987.

Table 5
Labor Force By Region and Census Area

	Labor Force			Unemployment			Rate			Employment		
	P/ 3/88	R/ 2/88	3/87	P/ 3/88	R/ 2/88	3/87	P/ 3/88	R/ 2/88	3/87	P/ 3/88	R/ 2/88	3/87
Alaska Statewide	241,687	239,567	242,403	26,008	26,538	32,600	10.8	11.1	13.4	215,679	213,029	209,803
Anch.-MatSu Region	126,767	126,317	129,360	11,882	12,024	14,918	9.4	9.5	11.5	114,885	114,293	114,442
Anchorage Borough	112,033	111,593	113,811	9,141	9,297	11,586	8.2	8.3	10.2	102,892	102,296	102,225
MatSu Borough	14,734	14,724	15,549	2,741	2,727	3,332	18.6	18.5	21.4	11,993	11,997	12,217
Gulf Coast Region	26,188	25,799	25,283	3,799	3,916	4,562	14.5	15.2	18.0	22,389	21,883	20,721
Kenai Peninsula Bor	16,852	16,557	16,401	2,868	2,889	3,459	17.0	17.4	21.1	13,984	13,668	12,942
Kodiak Island Bor	5,441	5,450	5,149	286	412	378	5.3	7.6	7.3	5,155	5,038	4,771
Valdez-Cordova	3,895	3,792	3,733	645	615	725	16.6	16.2	19.4	3,250	3,177	3,008
Interior Region	35,888	35,494	36,233	5,161	5,167	6,427	14.4	14.6	17.7	30,727	30,327	29,806
Fairbanks North Star Br	30,650	30,345	30,936	4,101	4,142	5,184	13.4	13.6	16.8	26,549	26,203	25,752
Southeast Fairbanks	2,198	2,171	2,175	406	402	436	18.5	18.5	20.0	1,792	1,769	1,739
Yukon-Koyukuk	3,040	2,978	3,122	654	623	807	21.5	20.9	25.8	2,386	2,355	2,315
Northern Region	8,153	7,942	8,122	816	738	1,112	10.0	9.3	13.7	7,337	7,204	7,010
Nome	3,167	3,054	3,190	375	313	522	11.8	10.2	16.4	2,792	2,741	2,668
North Slope Borough	2,846	2,789	2,780	145	137	200	5.1	4.9	7.2	2,701	2,652	2,580
Northwest Arctic Bor	2,140	2,099	2,152	296	288	390	13.8	13.7	18.1	1,844	1,811	1,762
Southeast Region	32,899	32,318	32,619	3,322	3,706	4,362	10.1	11.5	13.4	29,577	28,612	28,257
Haines Borough	851	874	884	105	152	171	12.3	17.4	19.3	746	722	713
Juneau Borough	14,087	13,683	13,878	900	926	1,280	6.4	6.8	9.2	13,187	12,757	12,598
Ketchikan Gateway Br	6,466	6,389	6,438	622	735	855	9.6	11.5	13.3	5,844	5,654	5,583
Pr. of Wales-Outer Ktch	2,529	2,555	2,528	409	504	503	16.2	19.7	19.9	2,120	2,051	2,025
Sitka Borough	3,890	3,834	3,774	343	403	385	8.8	10.5	10.2	3,547	3,431	3,389
Skagway-Yakutat-Ang	1,754	1,702	1,700	445	436	449	25.4	25.6	26.4	1,309	1,266	1,251
Wrangell-Petersburg	3,322	3,281	3,417	498	550	719	15.0	16.8	21.0	2,824	2,731	2,698
Southwest Region	11,792	11,697	10,786	1,028	987	1,219	8.7	8.4	11.3	10,764	10,710	9,567
Aleutian Islands	3,234	3,187	2,885	134	103	130	4.1	3.2	4.5	3,100	3,084	2,755
Bethel	4,550	4,492	4,173	420	383	503	9.2	8.5	12.1	4,130	4,109	3,670
Bristol Bay Borough	426	430	400	52	58	68	12.2	13.5	17.0	374	372	332
Dillingham	2,105	2,108	1,975	182	194	266	8.6	9.2	13.5	1,923	1,914	1,709
Wade Hampton	1,477	1,480	1,353	240	249	252	16.2	16.8	18.6	1,237	1,231	1,101

P/ Preliminary R/ Revised 1987 Benchmark

Federal guidelines require the use of unrounded labor force data, adjusted to be consistent with the Current Population Survey (CPS) in formulas used to allocate federal funds. Comparisons between different time periods are not as meaningful as other time series published by the Alaska Department of Labor; because Alaska's CPS sample size is inadequate to accurately indicate monthly changes in level. The sampling errors are random in nature; meaning that the unemployment rates, in any given month, are as likely to be high as frequently as they are low. The official definitions of unemployment, currently in place, exclude anyone who has made no attempt to find work in the four week period up to and including the week that includes the twelfth of each month. Most economists feel that Alaska's rural localities have proportionately more of these discouraged workers.

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